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**PROPOSAL ON LONG-DISTANCE LANDBIRDS  
IN THE AFRICAN EURASIAN REGION**

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## **Recommendation to the Scientific Council of the Convention on Migratory Species**

### *Background*

Several recent analyses clearly reveal that in particular long-distance trans-Saharan migratory species are declining in contrast to resident species and species that migrate only within Europe. I would like to exemplify this with a few selected case studies. The proportion of long-distance migratory species listed in the recent German Red List of Breeding Birds is almost twice the figure for resident and within-Europe migrants. Among the 97 most common breeding species in Germany, more than 40% of trans-Saharan migrant species declined over the last 10 years as compared to ca 25% of resident species. Furthermore, among Danish breeding birds, the trans-Saharan migrants declined during the past 20 years by some 40% while resident species and within-Europe migrants maintained their population sizes. Finally, it has been shown that population trends of birds in Europe are mostly negative while non-migrants are more or less stable, and that migrants travelling to North Africa and sub-Saharan Africa are declining most. Moreover, more detailed analyses revealed that among the European trans-Saharan migrants in particular the ones wintering in dry open African habitats suffer in contrast to the species which winter in other habitats. In recognition of the fact that most European trans-Saharan migrants are wintering in sub-Saharan savannas, this group in particular has to be a future conservation concern. This enormous difference in population changes between long-distance trans-Saharan migrants and non-migrants could only be explained by factors acting outside the breeding grounds. Therefore, effective and sustainable conservation requires a flyway perspective and solutions.

There is already ample data showing that population changes in breeding birds are linked to conditions at the wintering grounds. For example, in European Purple Heron, White Stork, Common Whitethroat or Sedge Warbler, annual changes in breeding numbers are closely related to Sahelian rain conditions. This is basically caused by the close relationship between the annual survival rates of these migratory species and the environmental conditions in African wintering areas. However, as shown in the White Stork even breeding success is to a considerable amount explained by environmental conditions in the African wintering areas. Birds which winter under unfavourable conditions may survive but seem to be unable to build up body reserves required for successful subsequent breeding.

Considering long-distance migrants and namely those which have to pass ecological obstacles, like sea and deserts, we must also bear in mind that most species are relying on resting and fuelling sites, respectively. Recent data reveal that many trans-Saharan European landbird migrants would not make it to continue their spring northbound migration to the breeding destinations without proper refuelling opportunities in the Mediterranean. Consequently, preservation of stopover areas as well as stopover habitats is crucial for conservation of migratory species, although mostly neglected so far. Therefore, one of the most important needs is to identify these crucial areas for stopover and fuelling, and the related species-specific habitat requirements.



Identification of these crucial areas for stopover as well as the population-specific wintering grounds could be achieved by a more thorough and comparative analysis of the already existing data of ringed birds, and, in particular, by the extended use of recently developed new tools to study bird migrations and migratory connectivity. These methods include evaluated colour-ringing projects, satellite telemetry, geolocation loggers, and the analysis of stable isotopes in feathers moulted at non-breeding grounds. While the first two methods could currently only be applied to medium to large-sized species, and the use of geolocation loggers depends on the ability to re-catch birds when returned to their breeding grounds, the feather analysis is not restricted by the size of the species nor much by trapping capabilities. Thus, even the smallest migratory songbirds could be investigated.

Identification of the major stopover regions and habitats as well as carry-over effects of stopover is also crucial for understanding the consequences of future global climate change on migratory landbirds. Climate change models predict considerable regional variation which will have different effects on migrating species due to variation in migratory routes and/or spatial variation of species-specific and even population-specific stopover sites.

Identification and understanding of migratory connectivity will further add to a better assessment of the future role of migratory species in the spread of avian borne emerging infectious diseases in the light of climate change. Namely tropical migrants wintering in wet and moist habitats are confronted with a wide range of infectious pathogens which are harmful to humans and/or wildlife. Ongoing climate change is likely to change distribution and abundance of vectors, and consequently the relationships between pathogens transported by tropical migratory species and their vectors. Again, these changes will be considerably determined by the spatial variation of predicted global warming.

#### *Suggested initiatives*

Being aware of the current and ongoing serious declines of in particular many long-distance trans-Saharan landbird migrants,

- recognizing that many of these species crucially rely on suitable stopover sites for rest and fuelling,
- recognizing the spatial variation in predicted climate changes,
- recognizing the possible role of tropical migratory species in the future spread of avian borne infectious emerging diseases, and
- considering emerging new tools to study migratory connectivity in comparatively short time,

I strongly recommend to the Scientific Council of the Convention on Migratory Species

- to extend its activities to long-distance migratory landbirds although most of them are neither listed in Appendix I of CMS nor are yet among the most critically endangered species but are declining considerably in many parts of their breeding ranges;
- to encourage the Parties of the Convention to act in identifying and protecting the major stopover sites and habitats, respectively;
- to implement a Memorandum of Understanding for Long-distance Migratory Landbirds along the African-Eurasian Flyway.

Franz Bairlein

(this is an updated version of the paper and follows the author's presentation at COP9 in Rome)